



Dii
Renewable energy
bridging continents

“Desert Power 2050” and Pilot Project

Win-win for MENA and Europe

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Dii + Fraunhofer: combined system of 90% Renewable Energy is a “win-win”



Europe and MENA can greatly benefit from power system integration

Europe cost savings with desert power import

Annual cost savings through connection €32,5bn

Annual electricity import 1,060TWh

Savings per import

30 €/MWh

MENA electricity industry with desert power exports

Annual electricity export 1,060 TWh

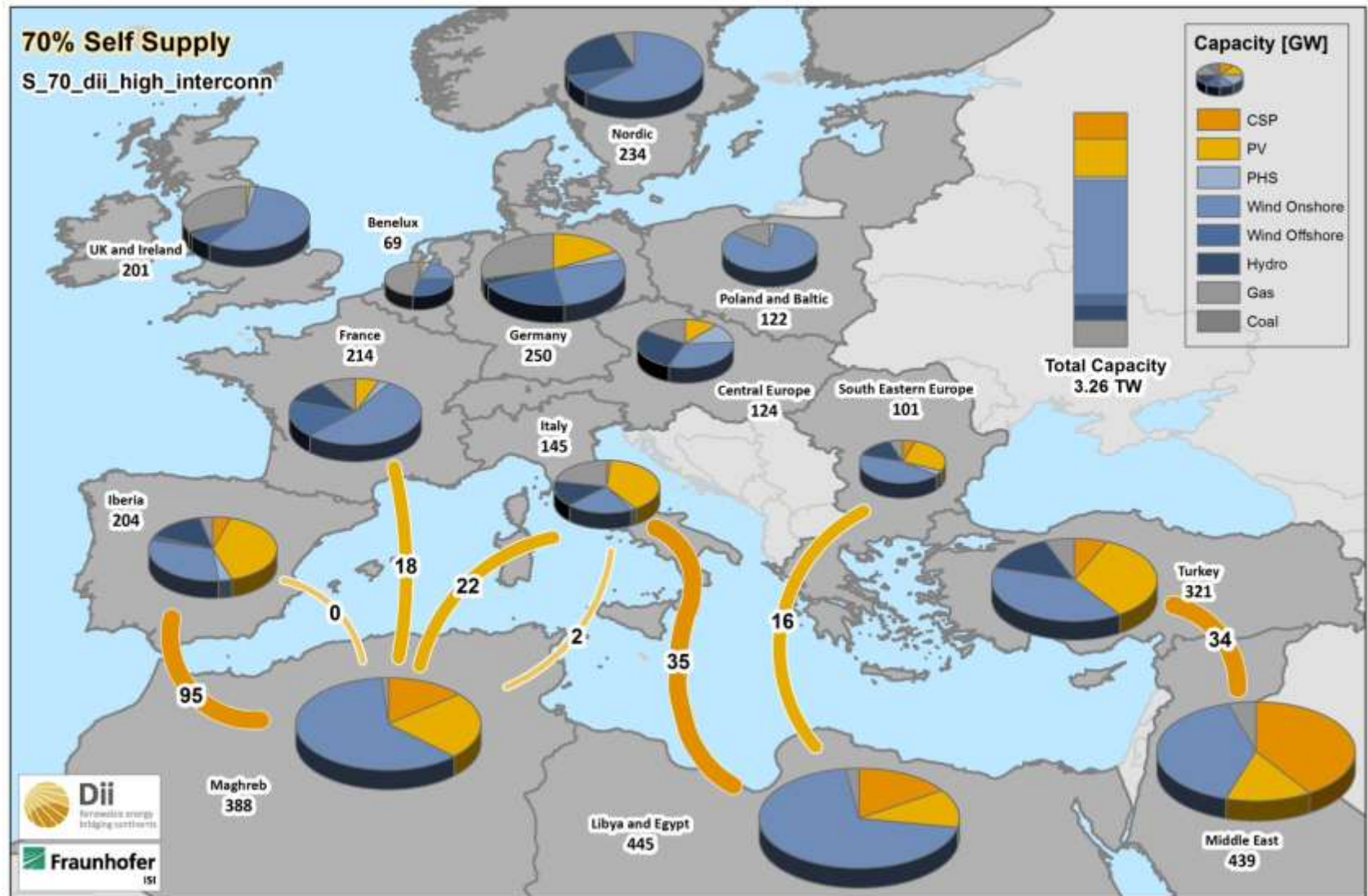
Cost of production plus transmission \times 41 €/MWh +14 €/MWh

Annual value for exports

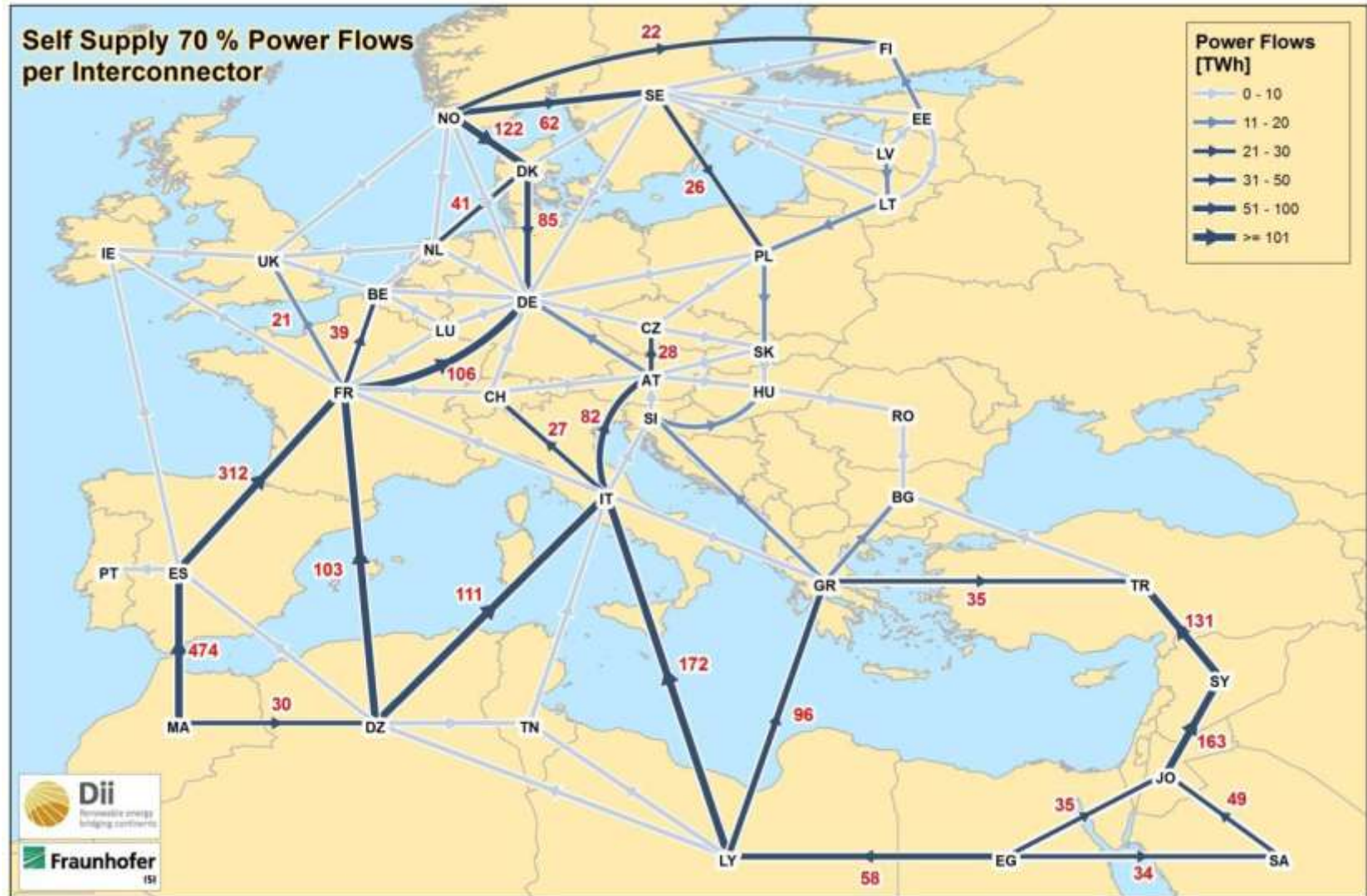
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Up to €60bn.

95% CO2 target: More than 1,200 GW of Wind, PV and CSP installed in MENA

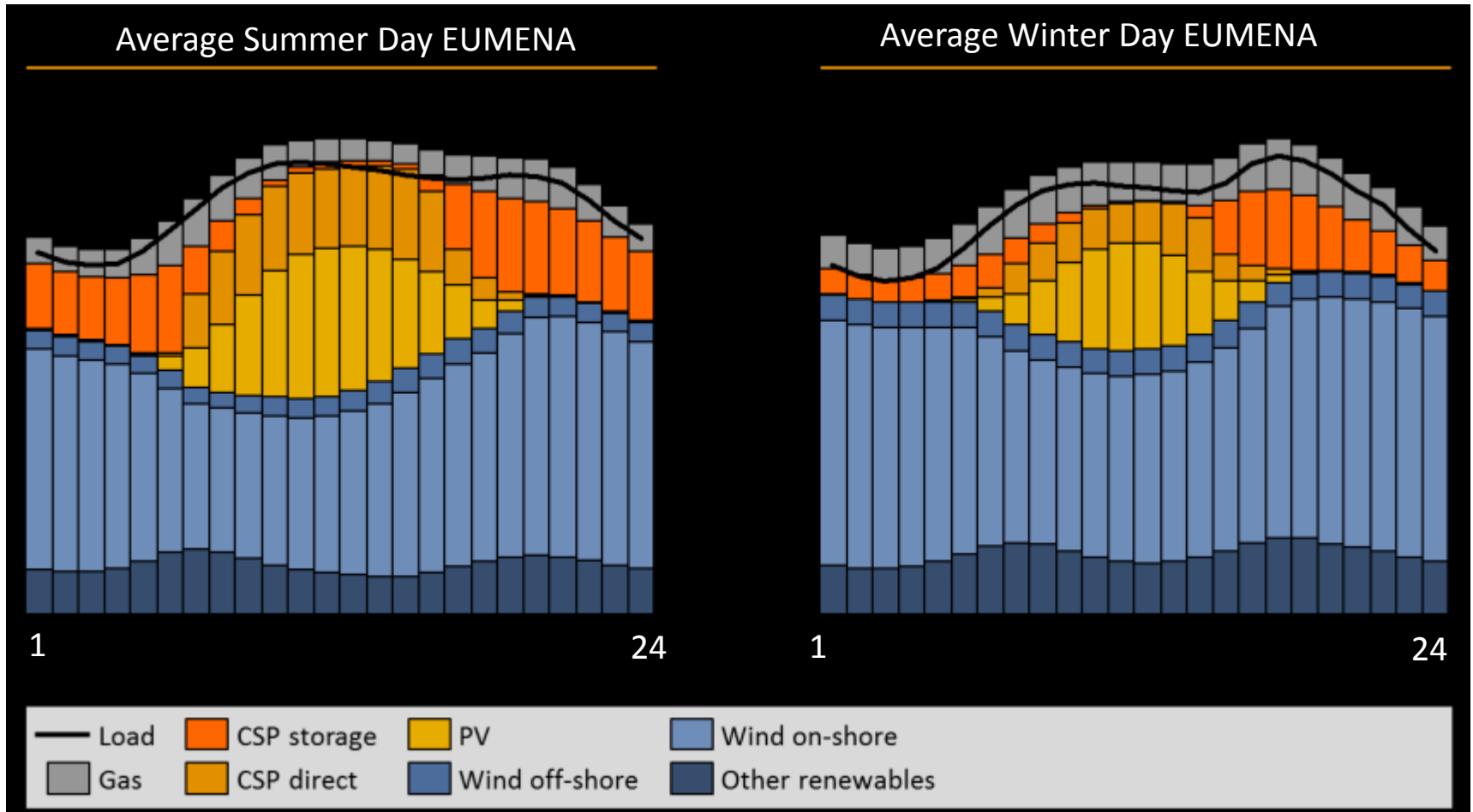


Major power flows from MENA up to Germany, BeNeLux and Central Europe









Reliable for 24 hours on 365 days: combined system offers highest degree security of supply

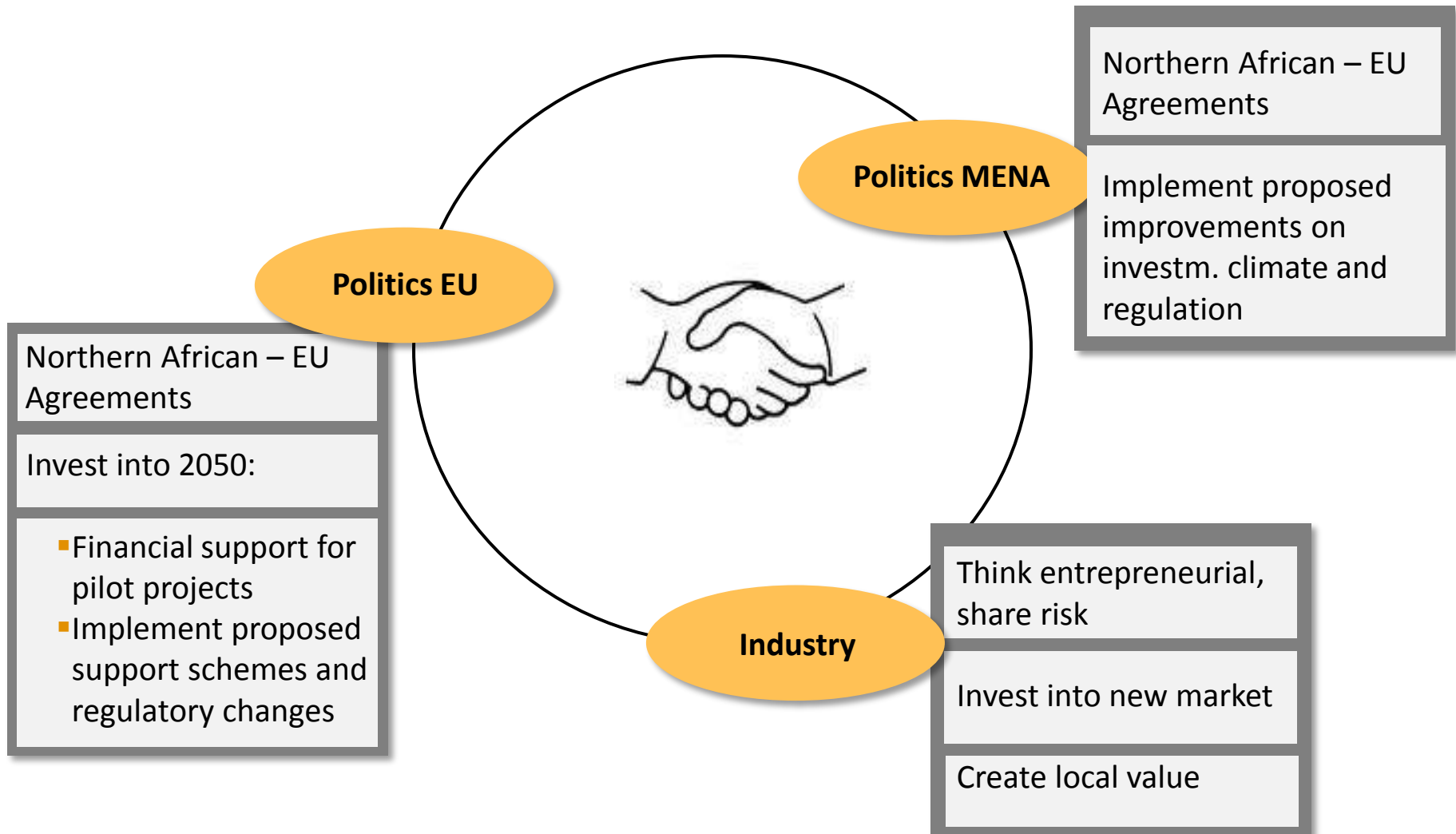
in TWh



Get it started now: Reference Project work in progress

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>Parabolic trough 150 MW, 4 hours storage <i>(Piloting the Export to EU)</i></p> | <ul style="list-style-type: none"> Project pre-defined Regulatory process proposed Investors commitment Public support under negotiation Realisation 2014/15 |
| | <p>PV 50 MW and Wind 50 MW</p> | <ul style="list-style-type: none"> Realization in 2013 |
|   | <p>2 MW PV as testsite for different PV technologies</p> | <ul style="list-style-type: none"> Realization in 2012 |
| | <p>CSP hybrid PV/Wind hybrid</p> | <ul style="list-style-type: none"> Yet to be defined |
|   | <p>1 GW as technology mix of CSP, PV and Wind <i>(Piloting Export to EU)</i></p> | <ul style="list-style-type: none"> Yet to be defined |

Economically viable and possible: dialogue on realisation of „Desert Power 2050“ needed





Thank you for your attention

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Europe and MENA Renewable Energy generation is complementary

in TWh

